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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/371,612	08/10/1999	ERWIN HACKER	514413-3768	9453

20999 7590 08/27/2002

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EXAMINER

CLARDY, S

ART UNIT	PAPER NUMBER
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1616

DATE MAILED: 08/27/2002

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/371,612

Applicant(s)
Hacker et al

Examiner
S. Mark Clardy

Art Unit
1616



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 20, 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22 is/are pending in the application.
- 4a) Of the above, claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 15, and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other: |

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Claims 14-22 are pending in this application. The original claims have been canceled; the new claims entered in Amendment B filed June 20, 2002, delete the elected and previously examined species in which the second (B) herbicide is chloransulam.

Applicants' new claims are drawn to compositions and methods of using herbicidal compositions comprising:

- A) a broad spectrum herbicide (glufosinate, glyphosate, imidazolinones, protoporphyrinogen oxidase (PPO) inhibitors)
- B) a second herbicide (groups B0¹ - B5; B2 may not be chloransulam)

In Paper No. 9, applicant elected with traverse of the species comprising:

A1.2 glufosinate-ammonium² and

B2.12 cloransulam-methyl³.

Examination has been expanded beyond the originally elected B component. In the discussion below, the parenthetical identifiers (A#.#) or (B#.#) refer to applicants' herbicide designations, e.g., glufosinate (A1.2). Claims 16 has been held withdrawn as being drawn to a non-elected species (A is glyphosate).

The rejection under 35 USC 101 is withdrawn in response to applicants' amendment B

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

¹Note that the group B0 may be any herbicide which is structurally different from those listed in group (A).

²Ammonium 2-amino-4-(hydroxymethyl)phosphinyl)butanoate

³ 3-chloro-2-[[[(5-ethoxy-7-fluoro[1,2,4]triazolo[1,5c]pyrimidin-2-yl)sulfonyl]amino]benzoic acid

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14, 15, and 17-22 are rejected under 35 U.S.C. 102(a) and (b) as being anticipated by Johnson et al⁴. Johnson et al, again, disclose sequential application of glufosinate (glf) with other herbicides in glufosinate tolerant soybean. In addition to the previously examined cloransulam, the additional herbicides may be pendimethalin (B1.4), imazethapyr (A3.2), sulfentrazone (A4.4), flumioxazin (B1.15), sethoxydim (B3.1), or flumiclorac (B2.7).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 15, and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Johnson et al, Agbaje et al (US 6,165,939), Novartis AG (WO 98/09525), Harvey et al⁵, and Steckel et al⁶.

Johnson et al has been discussed above and discloses the utility of sequential application of glufosinate and a second herbicidal agent in glufosinate tolerant soybean.

⁴Johnson et al. CROPU Abstract 1998-88956 of "Weed control programs in glufosinate-tolerant soybean" *Res. Rep. North Cent. Weed Sci. Soc.* (54,234-35). 1997.

⁵Harvey, et al. CROPU Abstract 1996-90386, of "Soybean herbicide studies", *Res. Rep. North Cent. Weed Sci. Soc.* 52, 316-20. 1995.

⁶Steckel et al. CROPU Abstract 1996-90678 of "Weed control in glufosinate tolerant soybeans" *Res. Rep. North Cent. Weed Sci. Soc.* (52, 336-38). 1995.

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Agbaje et al, again, teach compositions comprising glufosinate in combination with various secondary chloroacetamide and triazine herbicides, which may be further combined with additional herbicides (col 9, line 38 through col 10, line 35).

Novartis, again, teaches the utility of phospho-herbicides such as glufosinate and glyphosate in synergistic combination with additional herbicidal agents for the control of weeds in phospho-herbicide resistant crops (p. 1). Specifically disclosed secondary herbicides are (abstract): prosulfuron, primisulfuron, dicamba, pyridate, dimethenamide (B1.7), metolachlor (B1.5), fluometuron, propaquizafop (B4.5), atrazine, clodinafop, norflurazon (B1.13), ametryn, terbutylazine, simazine, prometryn, and four additional agents (NOA-402989 and compounds I-III).

Harvey et al, again, teach herbicides in various combined and sequential treatments for soybean crops.

Steckel et al, again, teach glufosinate, among other herbicides, applied alone or in various combinations for the control of weeds in glufosinate tolerant soybeans.

Again, one of ordinary skill in the art would be motivated to combine these references because each discloses a variety of herbicides which may be used in combination with others for weed control in soybeans, especially glufosinate resistant soybeans.

Thus, again, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have used applicants' elected glufosinate and cloransulam together or in sequence for the control of weeds in glufosinate resistant soybean because the prior art teaches that it was well known to control weeds in glufosinate tolerant crops by application of glufosinate and additional secondary herbicides. One of ordinary skill in the art would have the requisite skill

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to select appropriate secondary herbicides based upon the known herbicidal spectrum of activity of the second herbicide to enhance the herbicidal utility of the combination.

Again, the data presented in the specification does not demonstrate unexpected results because it cannot be determined if the differences between the expected and observed results are statistically significant (Table 5: 95% vs 93% control; Table 7: 85% vs 80% control).

No unobvious or unexpected results are noted; no claim is allowed.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Mark Clardy whose telephone number is (703) 308-4550.



S. Mark Clardy
Primary Examiner
AU 1616

August 23, 2002